

WHAT IS CLAIMED IS:

1. A receiver for regenerating a signal wave from a received wave that is amplitude-modulated, comprising:
  - a variable gain controller for performing variable gain
  - 5 adjustment of detection data generated by detection of said received wave that is frequency-converted to an intermediate frequency signal to the detection data having a constant level via digital signal processing, and
  - 10 a noise clamping section for performing noise clamping of the detection data having the constant level output from said variable gain controller via digital signal processing.
2. The receiver according to claim 1, wherein  
said variable gain controller comprises:
  - 15 a digital low pass filter for integrating detection data to generate DC component data,
  - a digital divider for dividing predetermined first reference data to indicate a detection data level by the DC component data generated by said digital low pass filter, and
  - 20 a digital multiplier for multiplying division data output from said digital divider via said division by the detection data to generate the detection data having a constant level.

3. The receiver according to claim 1, wherein  
said noise clamping section comprises:  
a digital comparator for comparing predetermined second  
reference data to indicate a clamp level with the detection  
5 data having a constant level and outputting the comparison  
results, and  
a selector circuit for outputting the detection data  
having a constant level as the data for the signal wave when  
the detection data having a constant level is smaller than the  
10 second reference data, and outputting the second reference data  
as the data for the signal wave when the detection data having  
a constant level is larger than the second reference data.

4. The receiver according to claim 3, further comprising:  
15 a digital multiplier for multiplying the first reference  
data by a predetermined scale factor so that the second reference  
data is generated.